BRUHATH BENGALORE MAHANAGARA PALIKE,

YELAHANKA ZONE

Name of work: Improvemnets To Roads And Drains at Sharada Nagara in Ward No.04

SoB Code:- 004-21-000007 — **Est .Cost Rs 98.00 Lakhs**

Sl. No	Description of Items	Unit	No	Dimension L	Dimension B	Dimension D	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB 300-3. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil invoiving , excavated surface leveled & sides neatly dressed , the disposed earth to be levelled neatly after breaking of clods complete as per specification MORTH/ Chapter 3. **(Page No. 142/ Item No. 19.1/ PWD SR 2018-19)**								
	For Desilting								
	4th B Cross Road		1	75.00	0.60	0.50	22.50		
	Cross-2		2	60.00	0.60	0.50	36.00		
	24th B Cross		2	59.00	0.60	0.50	35.40		
	Someshwara Temple Road		2	46.00	0.60	0.50	27.60		
	5th B Main Road		2	40.00	0.60	0.50	24.00		
	For RCC Drain								
	6th B Main Road		2	145.00	1.10	1.00	319.00		
	Cross Road from 5th B Main (LHS)		1	61.00	1.10	1.00	67.10		
	(RHS)		1	76.00	1.10	1.00	83.60		
	Main Road		2	25.00	1.10	1.00	55.00		
			2	98.00	1.10	1.00	215.60		
	Cross-1		2	60.00	1.10	1.00	132.00		
	For CC Road								
	Cross Road from 5th B Main		1	61.00	3.30	0.20	40.26		
			1	22.00	5.10	0.20	22.44		
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80	0.30	156.60		
	5th B Main		2	150.00	1.80	0.30	162.00		
		Cum					**1399.10**	**137.80**	**192795.98**
	Basic Rate	130.00							
	Area Weightage 6%	7.80							
	Grand Total	**137.80**							
2	Removing & Refixing stone slabs of drains and pointing in C.M (1:3) **(Page No. 27/ Item No. 5.33/ PWD SR 2018-19)**								
	4th B Cross Road		1	75.00	0.90		67.50		
	Cross-2		2	60.00	0.90		108.00		
	24th B Cross		2	59.00	0.90		106.20		
	Someshwara Temple Road		2	46.00	0.90		82.80		
	5th B Main Road		2	40.00	0.90		72.00		
							281.70		
	30% Missing Slab						84.51		
		Sqm					**197.19**	**111.30**	**21947.25**
	Basic Rate	105.00							
	Area Weightage 6%	6.30							
	Grand Total	**111.30**							
3	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. **(P.No-222,I No-27.18 pwd 2018-19)**								

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	For RCC Drain								
	6th B Main Road		2	145.00	1.10	0.15	47.85		
	Cross Road from 5th B Main (LHS)		1	61.00	1.10	0.15	10.07		
	(RHS)		1	76.00	1.10	0.15	12.54		
	Main Road		2	25.00	1.10	0.15	8.25		
			2	98.00	1.10	0.15	32.34		
	Cross-1		2	60.00	1.10	0.15	19.80		
	For CC Road								
	Cross Road from 5th B Main		1	61.00	3.30	0.15	30.20		
			1	22.00	5.10	0.15	16.83		
		Cum					**177.87**	**5509.33**	**979943.94**
	Basic Rate	5115.00							
	Deduct Cement cost as per SR -18-19 Page No.V Sl.No.123	-1079.39	Note:- (220*490.63/100)=1079.39						
	Add Cement cost as per Issue rate	1161.86	Note:- (220*264.06/50)=1161.86						
	Sub Total	**5197.48**							
	Area Weightage 6%	311.85							
	Grand Total	**5509.33**							
4	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm **(I No-37.59.2,P No-271 pwd 2018-19)**								
	For RCC Drain								
	For Bottom Raft								
	6th B Main Road		2	145.00	0.90	0.15	39.15		
	Cross Road from 5th B Main (LHS)		1	61.00	0.90	0.15	8.24		
	(RHS)		1	76.00	0.90	0.15	10.26		
	Main Road		2	25.00	0.90	0.15	6.75		
			2	98.00	0.90	0.15	26.46		
	Cross-1		2	60.00	0.90	0.15	16.20		
	For Wall								
	6th B Main Road		4	145.00	0.15	0.75	65.25		
	Cross Road from 5th B Main (LHS)		2	61.00	0.15	0.75	13.73		
	Cross Road from 5th B Main (RHS)		2	76.00	0.15	0.75	17.10		
	Main Road		4	25.00	0.15	0.75	11.25		
			4	98.00	0.15	0.75	44.10		
	Cross-1		4	60.00	0.15	0.75	27.00		
	Coping						**285.48**		
	24th B Cross		4	59.00	0.15	0.10	3.54		
	Someshwara Temple Road		4	46.00	0.15	0.10	2.76		
	5th B Main Road		4	40.00	0.15	0.10	2.40		
							8.70		
		Cum					**294.18**	**7189.42**	**2114983.05**
	Basic Rate	6670.00							
	Deduct Cement cost as per SR -18-19 Page No.V Sl.No.123	-1471.89	Note:- (300*490.63/100)=1471.89						
	Add Cement cost as per Issue rate	1584.36	Note:- (300*264.06/50)=1584.36						
	Sub Total	**6782.47**							
	Area Weightage 6%	406.95							
	Grand Total	**7189.42**							

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5	KSRRB M2300-14. Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) including cost of materials, labour, HOM complete as per specifications. MORTH Specification No. 1600 & 2200 (**I No-28.8.2,P No-229 PWD SR 2018-19)**								
	Consider 65kg/Cum for drain		1	285.48	65.00		18556.20		
		Tonne					**18.56**	**65046.90**	**1207023.29**
	Issued Rate	61365.00							
	Area Weightage 6%	3681.90							
	Grand Total	**65046.90**							
6	Providing and fixing Precast RCC cover slabs of 100 mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement and pointing for joints 1:3 cement mortor including form work, lift charges,curing and concrtee finished surface on both sides etc,and complete as per the directions of Enginner in charges.**(Data Rate)**								
	For RCC Drain								
	6th B Main Road		2	145.00	0.90		261.00		
	Cross Road from 5th B Main (LHS)		1	61.00	0.90		54.90		
	(RHS)		1	76.00	0.90		68.40		
	Main Road		2	25.00	0.90		45.00		
			2	98.00	0.90		176.40		
	Cross-1		2	60.00	0.90		108.00		
	Missing Slab Vide Qty No.2						84.51		
		Sqm					**798.21**	**2337.00**	**1865416.77**
	Data Rate	**2337.00**							
7	KSRRB 300-49. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **(Page No. 146/ Item No.19.55/ PWD SR 2018-19)**								
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80		522.00		
	5th B Main		2	150.00	1.80		540.00		
		Sqm					**1062.00**	**95.40**	**101314.80**
	Basic Rate	**90.00**							
	Area Weightage 6%	**5.40**							
	Grand Total	**95.40**							
8	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 **(Page No-140 Item no - 18.47 of KPWD SR 2018-19)**								
	For CC Road								
	Cross Road from 5th B Main		1	61.00	3.30	0.15	30.20		
			1	22.00	5.10	0.15	16.83		
		Cum					**47.03**	**952.94**	**44812.00**
	Basic Rate	**899.00**							
	Area Weightage 6%	**53.94**							
	Grand Total	**952.94**							

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9	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 **(Page No-147 Item no - 19.64 of KPWD SR 2018-19)**								
	For CC Road								
	Cross Road from 5th B Main		1	61.00	3.30		201.30		
			1	22.00	5.10		112.20		
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80		522.00		
	5th B Main		2	150.00	1.80		540.00		
		Sqm					**1375.50**	**6.36**	**8748.18**
	Basic Rate	6.00							
	Area Weightage 6%	0.36							
	Grand Total	**6.36**							
10	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. **(Page No-153 Item no -20.5 of KPWD SR 2018-19)**								
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80	0.15	78.30		
	5th B Main		2	150.00	1.80	0.15	81.00		
							159.30	1994.92	317790.76
		Cum							
	Basic Rate	1882.00							
	Area Weightage 6%	112.92							
	Data Rate	**1994.92**							
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **(Page No.155.tem No.20.18,PW,P & IWTD SR 2018-19)**								
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80	0.23	120.06		
	5th B Main		2	150.00	1.80	0.23	124.20		
		Cum					244.26	2001.28	488832.65
	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Data Rate	**2001.28**							

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12	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M20 (wt 360Kg per cum coarse aggregate @ 0.60cum and fine aggregate @ 0.46cum)								
	For CC Road								
	Cross Road from 5th B Main		1	61.00	3.30	0.15	30.20		
			1	22.00	5.10	0.15	16.83		
		Cum					**47.03**	**5354.02**	**251772.88**
	Basic Rate	4916.00							
	Deduct Cement cost as per SR -18-19 Page No.V Sl.No.123	-1766.27	Note:- (360*490.63/100)=1766.27						
	Add Cement cost as per Issue rate	1901.23	Note:- (360*264.06/50)=1901.23						
	Sub Total	**5050.96**							
	Area Weightage 6%	303.06							
	Grand Total	**5354.02**							
13	KSRRB M500-6. Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg I sqm using mechanical means complete as per specifications.MORTH Specification No. 502 **(Page No-161 Item no - 21.6 of KPWD SR 2018-19)**								
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80		522.00		
	5th B Main		2	150.00	1.80		540.00		
		Sqm					**1062.00**	**29.68**	**31520.16**
	Issue Rate	28.00							
	Area Weightage 6%	1.68							
	Grand Total	**29.68**							
14	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen **(Page No-160 Item no - 21.17.6 of KPWD SR 2018-19)**								
	For Asphalt Road								
	6th B Main Road		2	145.00	1.80	0.05	26.10		
	5th B Main		2	150.00	1.80	0.05	27.00		
		Cum					**53.10**	**6407.70**	**340248.87**
	Issued Rate	6045.00							
	Area Weightage 6%	362.70							
	Grand Total	**6407.70**							

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16	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **(Page No-161 Item no - 21.2 of KPWD SR 2018-19).**								
	For Asphalt Road								
	6th B Main Road		1	145.00	6.70		971.50		
	5th B Main		1	150.00	7.10		1065.00		
		Sqm					2036.50	5.30	10793.45
	Basic Rate	5.00							
	Area Weightage 6%	0.30							
	Grand Total	**5.30**							
17	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VGIO) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH **(Page No-161 Item no - 21.7 of KPWD SR 2018-19).**								
	For Asphalt Road								
	6th B Main Road		1	145.00	6.70		971.50		
	5th B Main		1	150.00	7.10		1065.00		
		Sqm					2036.50	12.72	25904.28
	Issued Rate	12.00							
	Area Weightage 6%	0.72							
	Grand Total	**12.72**							
18	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4 % VG-30 Bitumen **(P.No.162 & I.No.21.22.6 PWD 18-19)**								
	For Asphalt Road								
	6th B Main Road		1	145.00	6.70	0.04	38.86		
	5th B Main		1	150.00	7.10	0.04	42.60		
		Cum					81.46	7355.34	599166.00
	Issued Rate	6939.00							
	Area Weightage 6%	416.34							
	Grand Total	**7355.34**							
19	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **Page No. 182/ Item No. 24.15 PWD SR 2018-19**								
	For Asphalt Road								
	6th B Main Road		2	145.00	0.15		43.50		
	5th B Main		2	150.00	0.15		45.00		
							88.50	454.74	40244.49
		Sqm							
	Basic Rate	429.00							
	Area Weightage 6%	25.74							

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	Grand Total	454.74							
19	KSRRB M100-1 Loading and Unloading of Stone Boulder / Stone aggregates /Sand/ Kanker / Moorum. KSRRB M100-1 : Placing tipper at loading point, loading with front end loader,dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH -100/ Chapter 1 **(P.No.136 & I.No.17.1 PWD 18-19)**								
	Vide Item No.1, 7 & 8						1515.16		
		Cum					1515.16	57.00	86363.84
	Basic Rate	57.00							
20	KSRRB M100-4.1. Cost of Haulage Excluding Loading and Unloading MORTH -100/ Chapter 1 Case-I : Surface Road **(P.No.136 & I.No.17.4 PWD 18-19)**								
	Vide Item No.16						1515.16		
		t.km					1515.16	12.80	19393.98
	Lead for earth 5 km=(5*1.28*2=25.60)	12.80							

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Total Constrution cost	8749805.23
GST Charges 12%	1049976.63
Sub Total	9799781.86
Miscellaneous & Rounding Off	218.14
Grand Total	9800000.00

Rupees Ninety Eight Lakh(s) Only

rtificate:-

This work comes within BBMP limits.

Certified that Personaly Inspected the Work Spot

Certified that the estimate is prepared based on CSR of PWD Banglore Circle 2018-19 & Issued Rate 02.07.2020

Estimate is prepared Making Use of essential item of work as per site Conditions in safest way of Execution in

This work is not included in any other program of work

Assistant Engineer
Ward No.04

Assistant Executive Engineer
Yelahanka Satellite Town

Executive Engineer
Yelahanka Zone

Administrative Sanction for Rs. 98.00 Ninety eight lakhs only is accorded under head P-3499 2020-21 Registered as CE No. ..... Subject to conditions contained in enclosed memo No. EE/YNK/AS/SC/2020-21 Dt. 17.11.2020

Executive Engineer

...ned for Rs. 98,00,000/- NINETY EIGHT LAKH ONLY Under P-3499 Job Code No. 004-21-000007 Registered as SE(Y)/TS/ 46 /2021 to conditions contained in enclosed memo No. 46 / 20-21 Dated 26/11/2020

26/11/2020

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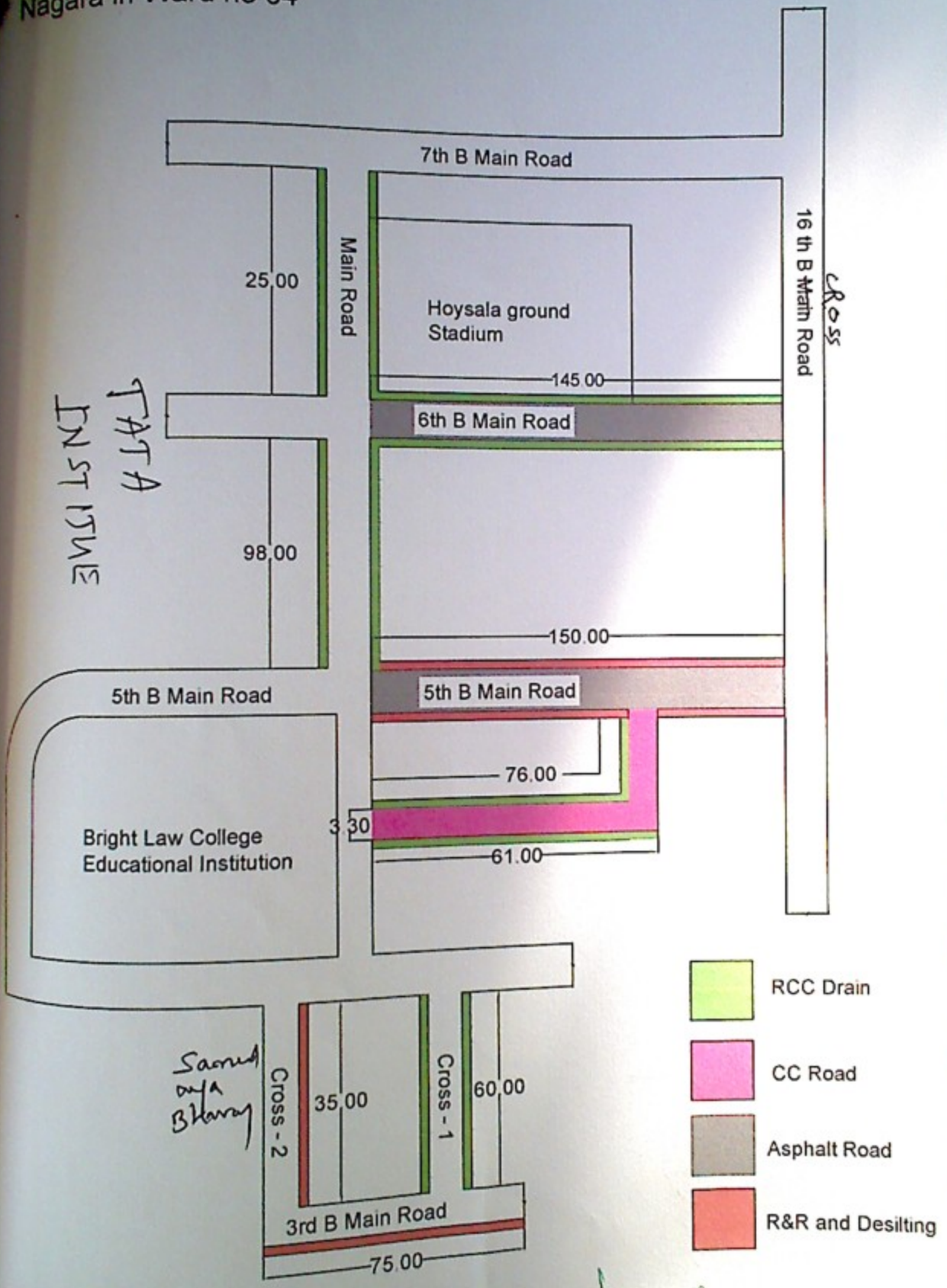
Name of Work :- Improvements to roads and drains at Sharada Nagara in Ward no 04



Asst. Engineer
Ward No 04

Asst. Executive Engineer
Yelahanka Satellite Town Sub Division